

Title (en)  
UNIVERSAL DONOR CELLS

Title (de)  
UNIVERSALSPENDERZELLEN

Title (fr)  
CELLULES DONNEUSES UNIVERSELLES

Publication  
**EP 4271795 A1 20231108 (EN)**

Application  
**EP 21844072 A 20211231**

Priority

- US 202063132890 P 20201231
- US 202163234997 P 20210819
- US 202163288356 P 20211210
- IB 2021062525 W 20211231

Abstract (en)

[origin: US2022204940A1] Genetically modified cells that are compatible with multiple subjects, e.g., universal donor cells, and methods of generating said genetic modified cells are provided herein. The universal donor cells comprise at least one genetic modification within or near a gene that encodes one or more MHC-I or MHC-II human leukocyte antigens or a component or a transcriptional regulator of a MHC-I or MHC-II complex, wherein genetic modification comprises an insertion of a polynucleotide encoding a tolerogenic factor and/or survival factor. The universal donor cells may further comprise at least one genetic modification within or near a gene that encodes a survival factor, wherein said genetic modification comprises an insertion of a polynucleotide encoding a second tolerogenic factor and/or a different survival factor.

IPC 8 full level  
**C12N 5/071** (2010.01); **A61K 35/39** (2015.01); **C07K 14/47** (2006.01)

CPC (source: EP KR US)

**A61K 35/39** (2013.01 - US); **A61K 35/545** (2013.01 - KR US); **A61P 1/18** (2017.12 - EP KR US); **A61P 3/10** (2017.12 - EP); **C07K 14/47** (2013.01 - EP); **C07K 14/475** (2013.01 - EP KR US); **C07K 14/495** (2013.01 - EP KR); **C07K 14/525** (2013.01 - KR US); **C07K 14/705** (2013.01 - EP KR); **C07K 14/70532** (2013.01 - KR US); **C07K 14/70539** (2013.01 - EP KR US); **C12N 5/0606** (2013.01 - KR US); **C12N 5/0676** (2013.01 - EP US); **C12N 5/0696** (2013.01 - KR US); **C12N 9/12** (2013.01 - EP); **C12N 9/14** (2013.01 - EP); **C12N 9/16** (2013.01 - EP); **C12N 9/22** (2013.01 - KR US); **C12N 9/485** (2013.01 - EP); **C12N 15/113** (2013.01 - KR); **C12N 15/85** (2013.01 - US); **C12N 15/907** (2013.01 - KR US); **C12Y 207/11001** (2013.01 - EP); **C12Y 301/03005** (2013.01 - EP); **C12Y 304/19012** (2013.01 - EP); **C12Y 306/01005** (2013.01 - EP); **A61K 38/00** (2013.01 - US); **C07K 2319/02** (2013.01 - KR US); **C07K 2319/035** (2013.01 - US); **C07K 2319/09** (2013.01 - KR US); **C12N 2310/20** (2017.04 - KR); **C12N 2506/02** (2013.01 - EP US); **C12N 2506/03** (2013.01 - US); **C12N 2506/45** (2013.01 - US); **C12N 2510/00** (2013.01 - EP KR US)

Citation (search report)  
See references of WO 2022144855A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**US 11578309 B2 20230214; US 2022204940 A1 20220630;** AU 2021414405 A1 20230810; AU 2021414617 A1 20230810; CA 3203392 A1 20220707; CA 3203707 A1 20220707; EP 4271795 A1 20231108; EP 4271796 A1 20231108; JP 2024503290 A 20240125; JP 2024503291 A 20240125; KR 20230146007 A 20231018; KR 20230146008 A 20231018; TW 202241472 A 20221101; TW 202242094 A 20221101; US 11566230 B2 20230131; US 2022218760 A1 20220714; US 2023127586 A1 20230427; US 2023193209 A1 20230622; US 2023193210 A1 20230622; US 2023323309 A1 20231012; WO 2022144855 A1 20220707; WO 2022144856 A1 20220707

DOCDB simple family (application)  
**US 202117566924 A 20211231;** AU 2021414405 A 20211231; AU 2021414617 A 20211231; CA 3203392 A 20211231; CA 3203707 A 20211231; EP 21844072 A 20211231; EP 21852071 A 20211231; IB 2021062525 W 20211231; IB 2021062526 W 20211231; JP 2023540001 A 20211231; JP 2023540003 A 20211231; KR 20237026132 A 20211231; KR 20237026133 A 20211231; TW 111100137 A 20220103; TW 111100145 A 20220103; US 202117566941 A 20211231; US 202217933369 A 20220919; US 202318151369 A 20230106; US 202318177702 A 20230302; US 202318177703 A 20230302